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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,964	09/06/2000	David M. Singleton	TH0681N (US)	9045
7590 04/20/2004			EXAMINER	
Yukiko Iwata Shell Oil Company, Intellectual Property PO Box 2463 Houston, TX 77252-2463			OGDEN JR, NECHOLUS	
			ART UNIT	PAPER NUMBER
			1751	
DATE MAILED: 04/20/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,964

Applicant(s)

SINGLETON ET AL.

Examiner

Necholus Ogden

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 70-73 and 75-102 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 70-73, 75-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Response to Amendment

Claim Rejections - 35 USC § 103

1. Claims 1-10, 12, 70-73, 75-100 and 102 rejected under 35 U.S.C. 103(a) as being unpatentable over Singleton (5,780,694) is withdrawn in view of applicant's arguments.

Response to Arguments

2. Applicant's arguments with respect to claims 1-10, 12, 70-73, 75-100 and 102 have been considered but are moot in view of the new ground(s) of rejection.
3. Claims 1-10, 12, 70-73, 75-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (US 4,075,129).

Murata teaches detergent compositions comprising an active detergent component comprising a mixture of (A) 0 – 70% by weight of an unbranched alkyl ether sulfate, having an average carbon atom number 8 – 13 [Formula (I)], and (B) at least 30% by weight of a branched alkyl ether sulfate with an average carbon atom number in the range of 8 – 13 [Formula (II)]. See the abstract. Therefore, the average number of carbon atoms in the hydrophobic alkyl groups of the specific component mixture range between 8 and 13, largely overlapping applicant's claimed range of about 9 – 14.5. Murata additionally teaches that the total detergent containing the specific component may additionally contain other conventional detergent additives such as (a) amphoteric (zwitterionic) co-surfactant, (b) nonionic co-surfactant, such as capped, partially capped

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or fully capped polyoxyalkylene ethers, (c) cationic co-surfactant (d) detergent builders, (e) heavy metal-sequestering agents, such as EDTA etc.

Murata is silent with respect to skeletal isomerization and isopropyl branching, however, it would have been obvious to one of ordinary skill in the art to comprise the biodegradable sulfate as claimed because Murata teaches a similar branched compound that encompasses the similar properties of the claimed invention. Furthermore, it is held that a prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991)

Compounds, which are, position isomers (compounds having the same radicals in physically different positions on the same nucleus) or homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH₂- groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See also *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978) (stereoisomers prima facie obvious). Isomers having the same empirical formula but different structures are not necessarily considered equivalent by chemists skilled in the art and therefore are not necessarily suggestive of each other. Ex parte

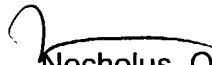
Mowry, 91 USPQ 219 (Bd. App. 1950) Similarly, homologs that are far removed from adjacent homologs may not be expected to have similar properties. In re Mills, 281 F.2d 218, 126 USPQ 513 (CCPA 1960).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholus Ogden whose telephone number is 571-272-1322. The examiner can normally be reached on M-T and Th-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Necholus Ogden
Primary Examiner
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